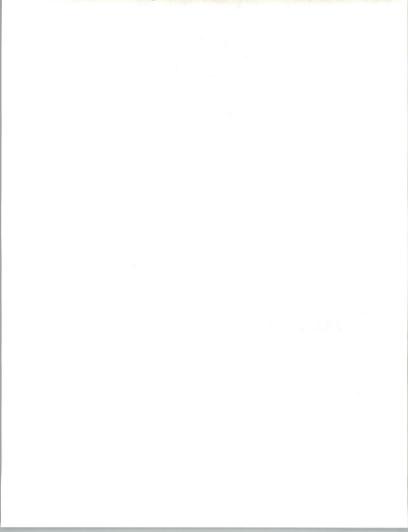
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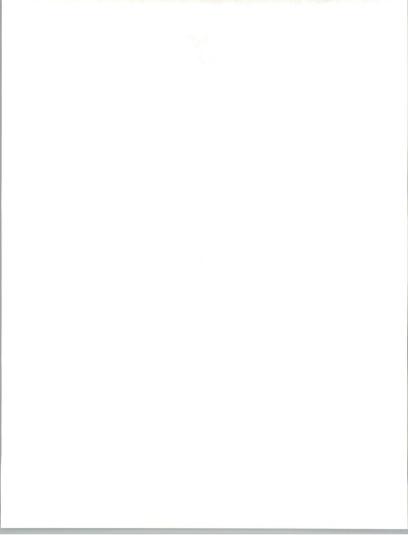
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Research	
Summary	
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	EDI Intertrends
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INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

Continuous-information advisory services, proprietary research/consulting, merger/acquisition assistance, and multiclient studies are provided to users and vendors of information systems and services (software, processing services, turnkey systems, systems integration, professional services, communications, systems/software maintenance and support).

Many of INPUT's professional staff members have more than 20 years' experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

Formed as a privately held corporation in 1974, INPUT has become a leading international research and consulting firm. Clients include more than 100 of the world's largest and most technically advanced companies.

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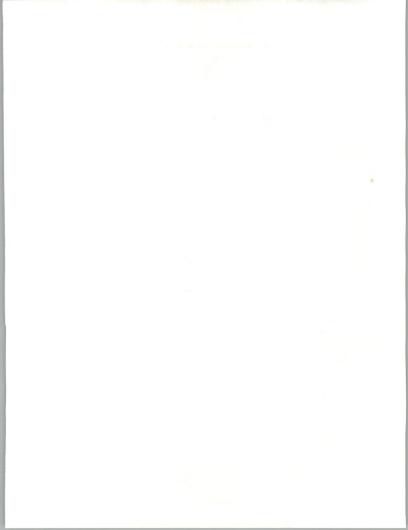
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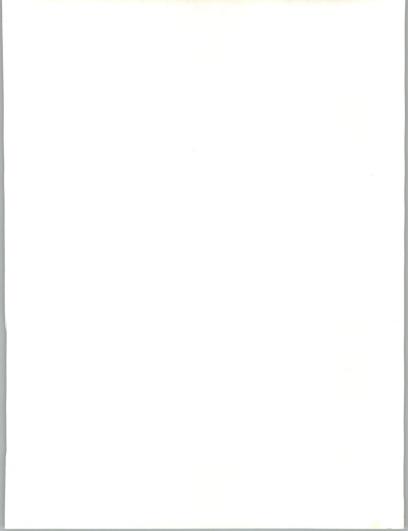
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# To Our Clients: This Reseach Summary is a précis of a full research report, *EDI Intertrends—Western Europe*, 1989-1994, issued as part of INPUT's International EDI Programme. To Order the Report: Complete the enclosed order form and mail or fax it to any INPUT office listed on the back of this document,

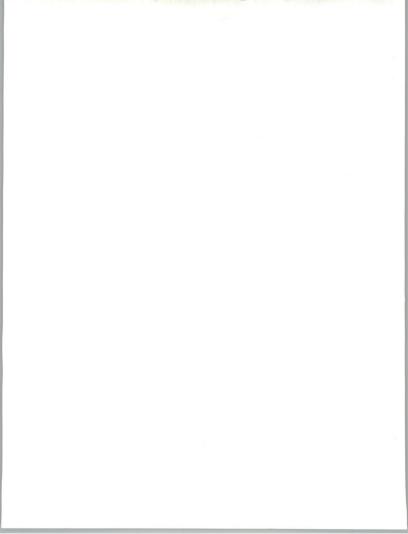


# **Abstract**

Electronic Data Interchange (EDI) is the electronic transfer of structured business data between computer applications in different organisations. EDI is process-to-process communication in machine-readable formats that overcomes organisational difficulties in computers, protocols and data formats.

EDI is emerging as an area of increased focus, and this report examines the development of this strategically important and fast-growing market opportunity in Western Europe. The report provides an assessment of the current size of the market, the strategies employed by the leading Network Services' vendors, EDI software market directions and the growing role of professional services organisations.

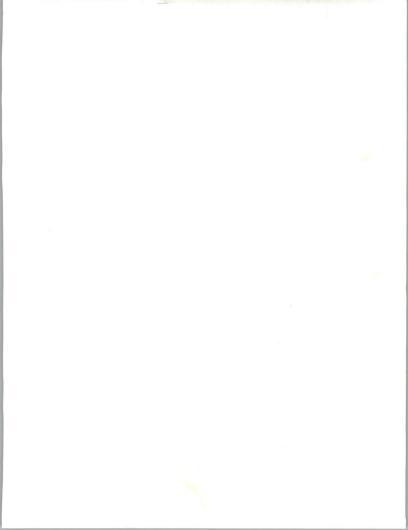
The market is analysed by individual country with forecasts through to 1994, including an assessment of the major development forces that are driving market growth. The report also includes survey-based findings on EDI user managers' concerns regarding standards, integration, vendor viability and the importance of EDI in the development of the single European market.



# **Summary Contents**

A. Introduction	1
B. Market Opportunities	2
C. Standards and Industry Associations	3
D. Vendor Opportunities	5
E. Country Markets	6
F. Vertical Sectors	6
G. Development Forces	6
Report Table of Contents	9
Report Exhibits List	
Programme Description	

ii



# Research Summary

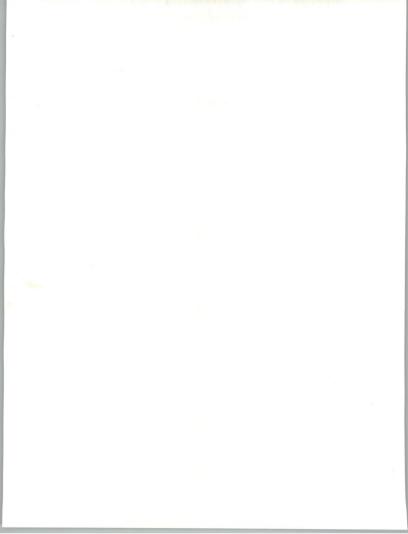
This Research Summary provides a précis of the content of INPUT's *EDI Intertrends—Western Europe*, 1989-1994 report, part of INPUT's international EDI programme.

#### 4

## Introduction

INPUT's EDI Intertrends—Western Europe, 1989-1994 report, produced as part of INPUT's international Electronic Data Interchange programme, examines the Western European EDI market, providing a comprehensive investigation and analysis of developments in this strategically important area. The report contains:

- Market analyses of the individual country markets of France, West Germany, UK, Italy, and Spain, as well as the Benelux and Scandinavian markets, with forecasts through to 1994.
- An assessment of the major development forces that are driving market growth.
- The strategies employed by the leading network services and software vendors.
- · Analysis of the role of professional services in the EDI market.
- Country rankings of the leading vendors in the EDI Software and Services market based on user expenditures.
- Survey-based findings on EDI managers' concerns regarding key issues such as network and data security, standards, integration and vendor viability.
- A commentary on the key EDI issues as Europe moves towards the single European market.



EDI Intertrends—Western Europe, 1989-1994 is the definitive report for organisations interested in or involved in EDI.

#### **EXHIBIT A**

## REASONS FOR USING EDI

- · Reduction in costs
- Fewer errors
- · Faster turnaround
- · Improved customer service
- Competitive tool
- · Increased productivity
- · Improved management control

#### В

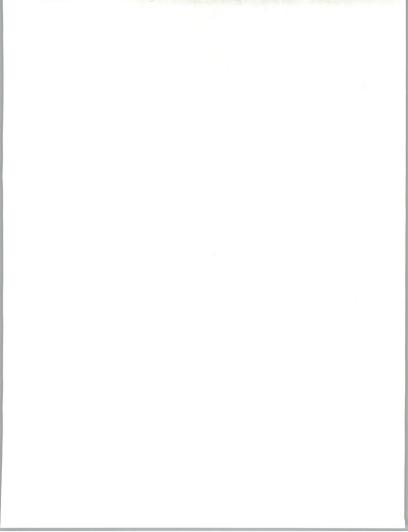
# Market Opportunities

INPUT's EDI Intertrends—Western Europe, 1989-1994 report sizes the current EDI market around \$30 million in 1989, forecasting that it will grow at a compound annual growth rate in excess of 50% over the five-year forecast period.

INPUT's forecast includes third-party EDI network services, software and professional services, but excludes consumer applications such as:

- · electronic shopping
- · electronic banking
- · automated teller networks
- · point-of-sale terminals
- · airline reservation systems
- · credit authorisation systems
- · "captive" networks

Whilst these systems do use electronic "forms" to transfer information, the applications generally use specialised terminal devices to communicate with dedicated computers and are not computer-to-computer, application-to-application implementations; that use proprietary data formats rather than public standards.

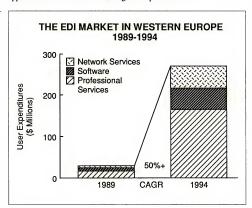


The report recognises that the UK is the only market that has reached any level of maturity, but highlights how the opening up of private, internal EDI networks, coupled with the realisation of a large number of pilot projects in Western Europe, will result in the major economies of France and West Germany showing higher rates of growth than the UK during the forecast period.

The report also looks at the development of EDI within and across industry sectors and at the small number of organisations that have fully integrated EDI into their business philosophies and external operations and are moving towards volume implementation covering a growing number of documents and messages in the trading cycle.

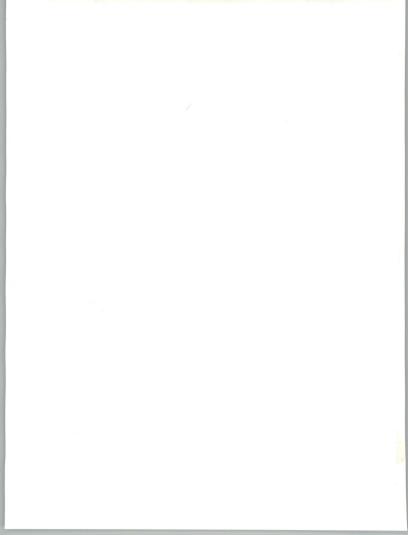
The report looks at the corporate requirement to streamline information flow, which is making the adoption of EDI such an important strategic application in the context of the single European market.

#### EXHIBIT B



C

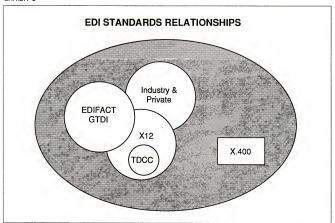
Standards & Industry Associations The report looks at the evolving role of standards in the EDI market. EDI involves the transmission of data in one of several standard formats, with EDIFACT (Electronic Data Interchange For Administration, Commerce and Transport) emerging as the most likely standard for international trade.

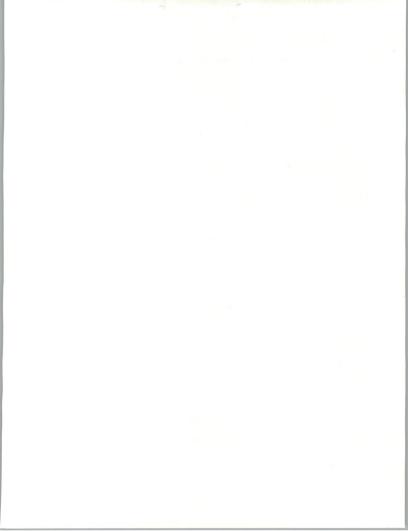


Whilst conceding that the widespread use of EDIFACT will enable communication across industry lines and will create a market for additional interchange applications, INPUT notes that the majority of users are still at an early stage with EDI and argues that industry-specific or national standards (e.g., ODETTE and TRADACOMS) will continue to play a vital role in the development of the market. INPUT concludes that multiple standards will not represent a significant impediment to the development of the EDI market: standards supporting international trade are increasingly available and X.400 is working to overcome incompatible systems and support internetwork communications.

The report also looks at the role of industry and trade associations, usually comprising competitors who are working together to define the messages required, using whatever is available internationally with regard to syntax and message standards. INPUT assesses the importance of development groups, which mirror the different sectors of the industry, in stimulating EDI growth.

#### EXHIBIT C





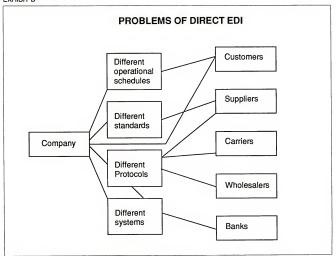
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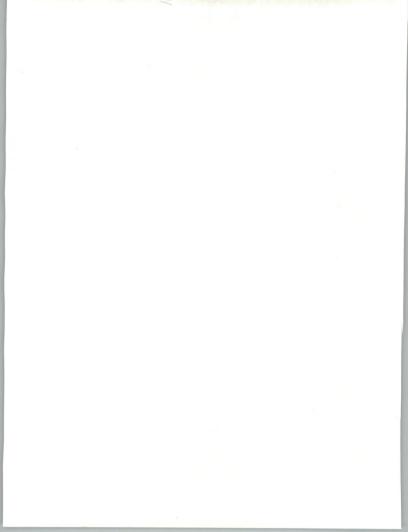
## Vendor Opportunities

The report highlights the varieties of EDI: Point-to-point, directly between trading partners; or the most widely used option, by means of third-parties. INPUT reviews the role of these third-party firms, which serve as collection and switching services, and which perform store-and-forward tasks as well as other processing services.

The report also considers the new lines of business that EDI is providing for software vendors and professional services firms: The integration of EDI with other applications is a key issue, as is the implementation of EDI in several functional areas in order to incorporate the application into the overall strategy of an organisation. INPUT concludes that it will be users who will ultimately benefit from this intense industry competition through a variety of choices in competitive pricing and improved features. Profitability for vendors, however, remains elusive and is likely to remain so for some time.

#### EXHIBIT D





E

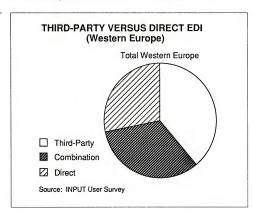
## Country Markets

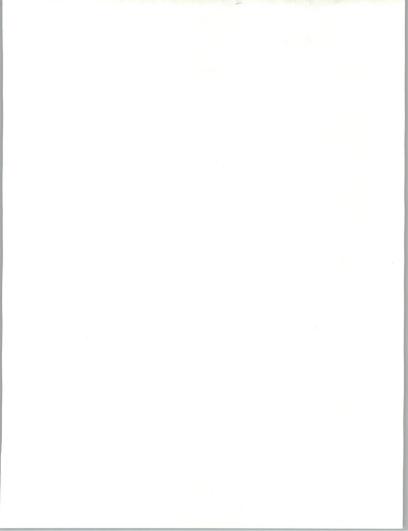
The report looks at how telecommunications deregulation has helped to maintain the buoyancy of the EDI market, in particular the UK, where the market benefitted from the liberalisation of service provision in the early 80s with the privatisation of British Telecom and the introduction of competition in the form of Mercury.

Against this, the UK has seen the arrival of a number of multinational players attracted by the rewritten rules and the promise of profitable investment as traffic can be diverted from the national networks onto their own systems.

The report shows how the stages of EDI development vary markedly across Western Europe. INPUT notes how a higher percentage of EDI communications in mainland Europe is being carried out via direct links between trading partners rather than the UK clearinghouse approach.

#### EXHIBIT E





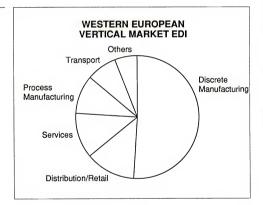
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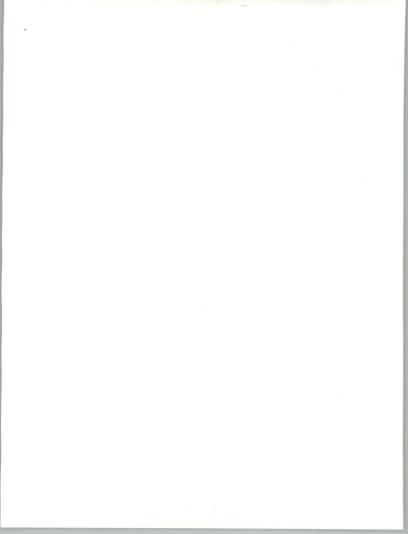
## Vertical Sectors

The report provides a vertical market sector analysis and forecast, which shows the manufacturing sector to be the largest EDI user, reflecting the benefits of EDI in enabling just-in-time manufacturing techniques and consequent improvements in inventory levels.

The retail and distribution sectors are also key markets for EDI, reflecting the reach of the large third-party networks and the drive towards improving pan-European communications, as evidenced by the number of projects being carried out in the areas of transport, customs and distribution throughout Europe. Additionally, INPUT anticipates that the banking and financial sectors will show high rates of growth over the forecast period.

#### EXHIBIT F





G

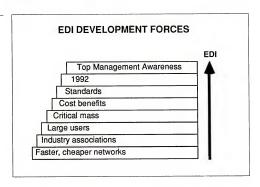
## Development Forces

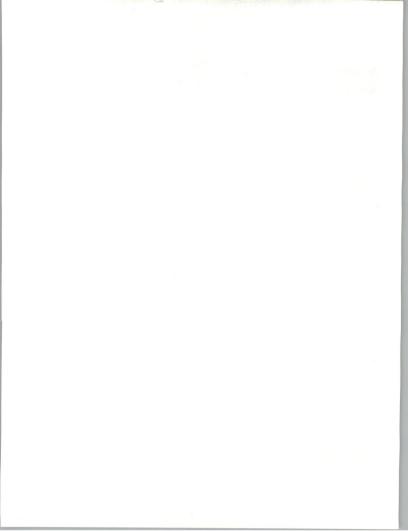
Finally, INPUT considers the development forces—the "intertrends"—that are driving EDI. The deregulation of the public telecommunications networks in Western Europe; the lack of technological distinction between data processing, office automation and telecommunications; and the growing commitment to the network as a framework for conducting business are all leading to the existence of faster, cheaper networks.

The report highlights the problems associated with the development of a critical mass of trading partners, where user organisations have been forced by suppliers to adopt EDI without being adequately prepared for the changed business practices required for the integration of EDI into the company's operations.

INPUT concludes that where office automation failed to fulfill the hype surrounding its introduction and had a minimal effect on an organisation's infrastructure, EDI—because it imports external influences and, more crucially, because it cuts across internal functions and departments—will have a much greater influence in fundamentally altering the way companies conduct business.

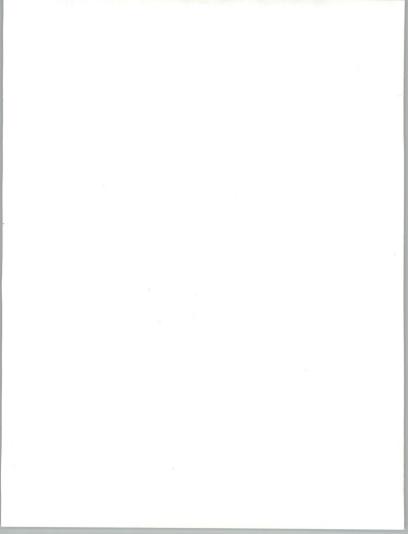
#### EXHIBIT G





# Table of Contents

- Introduction
  - A. Background
  - B. Scope
  - C. Methodology
  - D. Related INPUT Reports
- II Executive Overview
  - A. EDI Usage Is Expanding Rapidly
  - B. Western European EDI
  - C. EDI-Associated Factors
  - D. User Issues
  - E. Principal Country Markets
  - F. Principal Industry Sector Markets
  - G. EDI Software & Services: Recommendations
  - H. EDI Development Forces
- III EDI Overview
  - A. Background
  - B. Before EDI
  - C. Reasons for Using EDI
  - D. Approaches to EDI
  - E. Requirements for EDI
  - F. Participants
  - G. Software
- IV Market Analysis & Forecast
  - A. Overall Growth
    - B. Forecast Definition
    - C. Aggregate Market Growth



# Table of Contents (Continued)



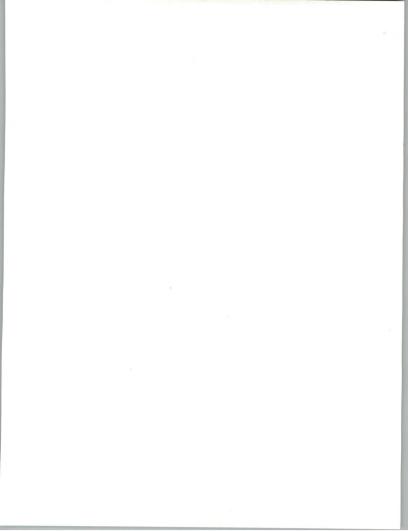
- D. Forecast Reconciliation
- Western European Market E.
- F. Competition



# Market Environment

- Development Forces
  - 1. Western European Network Environment
  - 2. Critical Mass
  - 3. Standards
  - 4. Cost Benefits
  - 5. National v. International
  - 6. Industry Associations
- Issues
  - 1. Security
  - 2. Legal
  - 3. Trading Relationships
  - 4. Management
  - 5. Pricing Trends
  - 6. Interworking
- Competitive Environment
- 1. Network Services
  - 2. Software
  - 3. Professional Services
  - 4. Partnering
- 5. The Role of Banks 6. PTTs
  - Country Markets
- D.
  - 1. Overview
  - 2. UK
    - a. Market Size
      - b. Network Services
    - c. Software
    - d. Professional Services
    - e. Vertical Sectors
  - 3. France.
    - - a. Market Size
      - b. Network Services
      - c. Software
      - d. EDI Projects

  - 4. West Germany a. Market Size
    - b. Network Services
    - c. Software

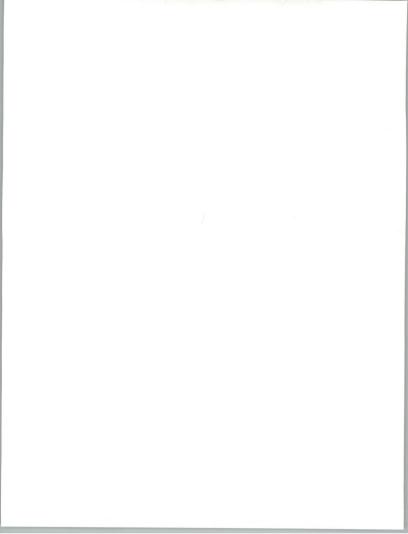


# Table of Contents (Continued)

- ٧
- 5. Italy
  - a. Market Size
- b. Network Services
- 6. Scandinavia
  - a. Market Size
  - b. Network Services
- 7. Benelux
- a. Market Size
- b. Network Services
- 8. Spain
- a. Market Size
- 9. Rest of Europe
  - a. Market Size
- VI The User Environment
  - A. Overall EDI Issues and Concerns
    - 1. Network/Data Security
    - 2. Software Maintenance
    - 3. EDI Compatibility with Other Applications
    - 4. EDI Standards
    - Legal Issues
    - Vendor Viability
    - B. Third-Party Networks
    - C. Interconnection
  - D. EDI Software Issues
    - 1. Choosing the Software
    - 2. Software Features
  - E. Implementation Issues
    - 1. Reasons for Implementation
  - 2. Implementation Execution
  - F. Computer Platform Choices
  - . Computer Flationin Choice.
  - G. EDI Opportunities
    - Applications
    - 2. Transaction Sets
- VII

## EDI into the 1990s

- A. EDI Development Forces
- B. Vendor Recommendations
- C. User Recommendations



Appendix: Analysis of Interviews

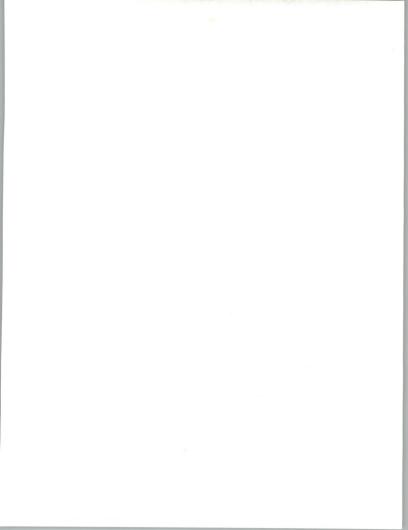
## Table of Contents (Continued)

A Appendix: Glossary of EDI Terms

B Appendix: Vendor Questionnaires

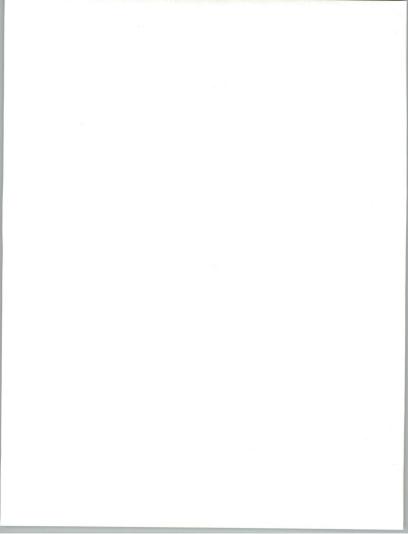
C Appendix: User Questionnaires

D



#### **Exhibits**

- Ш
- -1 EDI Usage (Western Europe)
- The EDI Software and Services Market in Western Europe 1989-1994
- -3 EDI Markets Will Exceed Forecast
- -4 User Issues & Concerns (W. Europe)
- Western European EDI Markets by Country, 1989
   Western European EDI Markets by Vertical Sector, 1989
- -7 EDI Software & Services: Recommendations
- -8 EDI Development Forces
- Ш
- -1 Without EDI
- -2 Reasons for Using EDI
- -3 Problems of Direct EDI
- -4 EDI: General vs. Specific
- The Language of EDI
- Participants in the EDI Market
   Software Providers
- IV
- -1 U.S. Dollar Conversion and Inflation Rates
- The EDI Market in Western Europe, 1989-1994
- -3 EDI Market Components 1989
- -4 Forecast Reconciliation
- Western European EDI Software and Services, 1989-1994
- -6 The EDI Market in Western Europe, 1989-1994
- Western European EDI Software and Services Market by Country, 1989-1994
- W. European EDI Software & Services—Country Markets 1989-1994
- -9 West European Vertical Market EDI
- -10 W. European Industry Segment EDI Expenditures, 1989
- -11 Leading Vendors—Western European EDI Market



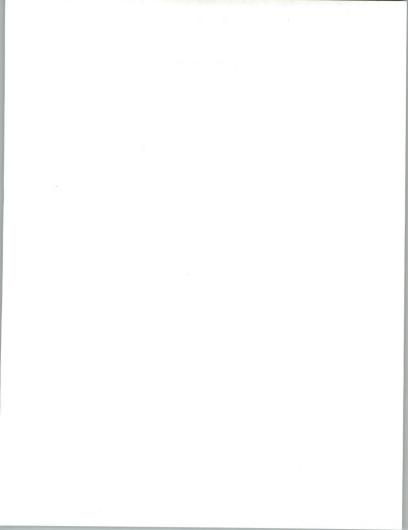
#### Exhibits (Continued)



- -1 Current and 1994 Network Situation
- -2 Trade Facilitation Bodies
- Structure of Edifact Board
- -4 EDI Standards Relationship
- -5 OSI Seven-Layer Reference Model
- -6 X400 Benefits—A Gateway between Different Systems
- -7 EDI Activity Found in Most Industries
- -8 EDI Introduction (Western Europe)
- -9 Third-Party Service Providers' Role in EDI
- -10 EDI Software Is Central to the System
- -11 The Western European Professional Services Market
- -12 Three Types of EDI Networks
- -13 The Western European EDI Market
- -14 UK EDI Market 1989-1994
- -15 Leading UK EDI Software & Services Vendors, 1989
- -16 1989 UK EDI Services Market
- -17 French EDI Market, 1989-1994
- -18 Leading French EDI Software & Services Vendors, 1989
- -19 French EDI Projects
- -20 West German EDI Market, 1989-1994
- Leading West German EDI Software & Services Vendors, 1989
- -22 VASCOM Service
- -23 Italian EDI Market, 1989-1994
- -24 Leading Italian EDI Software & Services Vendors, 1989
- Scandinavian EDI Market, 1989-1994
- -26 Leading Scandinavian EDI Software & Services Vendors, 1989
- -27 Benelux EDI Market, 1989-1994
- Leading Benelux EDI Software & Services Vendors, 1989
- -29 Spanish EDI Market, 1989-1994
- -30 Leading Spanish EDI Software & Services Vendors,
- -31 EDI Market, Rest of Europe, 1989-1994
- Leading EDI Software & Services Vendors, Rest of Europe, 1989



- -1 User Issues and Concerns (Western Europe)
- User Issues and Concerns (by Country)
- -3 User Ratings of Third-Party Networks (Western Europe)
- -4 User Ratings of Third-Party Networks (by Country)
- User Concerns with Third-Party Networks
- Third-Party vs. Direct EDI



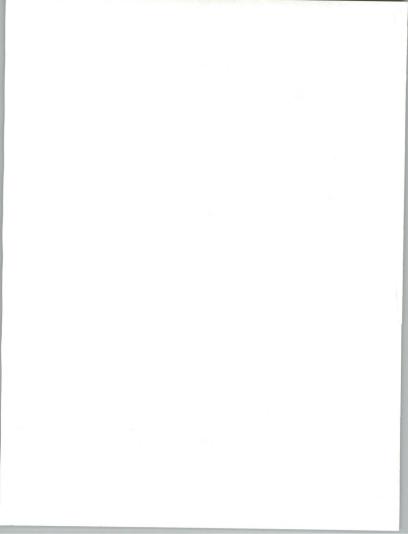
### Exhibits (Continued)



- -7 EDI Issues: How Important Is Network Interconnection?
- -8 Reasons for Network Interconnection
- -9 Buy or Build EDI Software Decisions (W. Europe)
- -10 Buy or Build EDI Software Decisions (by Country)
- -11 Software Features Importance (W. Europe)
- -12 Software Features Importance (by Country)
- -13 EDI Drivers
- -14 EDI Start-Up Reasons (Strategic)
- -15 EDI Implementation (W. Europe)
- -16 Computer Used for EDI (W. Europe and by Country)
- -17 EDI Usage (Western Europe)
- -18 Key Applications Integrated with EDI (W. Europe)



- -1 EDI Development Forces
- -2 EDI Vendor Recommendations
- -3 EDI User Recommendations



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# QUALITY CONTROL PROOFREADING SIGNOFF

DESCRIPTION	EDIREPORT BROCHURE AENG-FDIE TIM STEVENS			
DATE TO PROOFREADER	TO BE PROOFED BY	INITIAL	DATE	
6/12	116	AG	6/13	
6/14	FAX TO UK / Changer	4	6/13	
6/15	PETER C.	Ax	(At n	
FINAL Q.C.	NIC WHEATMAN	Ser.	6/16	
READY FOR PRINTER				

